

REMARKS

In the outstanding Final Office Action, claims 25-32 were rejected under 35 U.S.C. §102(b) over SATO (U.S. Patent No. 5,956,328), in view of Applicant's disclosed prior art and OMORI (U.S. Patent No. 6,239,666). Claims 33-35 were rejected under 35 U.S.C. §103(a) over SATO, in view of Applicant's disclosed prior art.

As set forth in the previous Response filed on June 12, 2007, independent claims 25, 26, 28 and 32 are allowable over SATO in view of Applicant's disclosed prior art and OMORI. In this regard, each of these independent claims is generally directed to features relating to amplitude adjustment after sign inversion to obtain a first phase offset, and before phase offsetting by a second phase offset smaller than 90°.

Below, Applicant has reproduced cited portions of the Figures of each of SATO, Applicant's disclosed prior art, and OMORI. As can be seen in Figure 4B of Applicant's disclosed prior art, phase control was conventionally performed after amplitude adjustment (see elements 406 and 407). Figures 1 and 2 of SATO are directed to features of phase control (see elements 201 and 202), but not to features relating to amplitude adjustment, and therefore do not contradict Applicant's disclosed prior art. However, according to Figure 3 of OMORI, phase control, is performed before amplitude adjustment (see elements 35 and 36).

Though none of SATO, Applicant's disclosed prior art or OMORI disclose amplitude adjustment occurring between phase control stages, the Final Office Action asserts that the combination of Applicant's disclosed prior art, SATO and OMORI would somehow lead to such features as present in various of Applicant's independent claims. As noted above, cited portions of the Figures of SATO, Applicant's disclosed prior art and OMORI are reproduced below.

Cited portions of Figures 1 and 2 of SATO are reproduced below:

FIG. 1

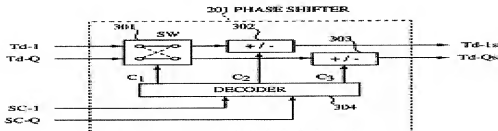
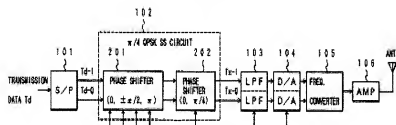


FIG. 2

Figure 4B from the publication of the present application (i.e., U.S. Patent Application Publication No. 2002-0075970) is reproduced below:

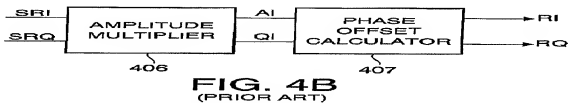
FIG. 4B  
(PRIOR ART)

Figure 3 of OMORI is reproduced below:

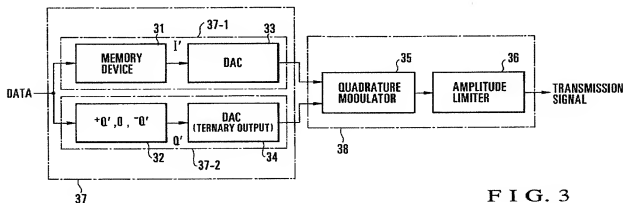


FIG. 3

Further, the outstanding rejections under 35 U.S.C. §103(a) fail to establish a prima-facie obviousness rejection using the obviousness factors set forth in *Graham v. John Deere Co.*, 383 U.S. 1 (1966). That is, the Final Office Action fails to determine the scope and content of the prior art, fails to properly ascertain (or acknowledge) differences between the prior art and the claims at issue, and fails to resolve the level of ordinary skill in the pertinent art. See *KSR Int'l v. Teleflex Inc.*, 82 USPQ2d 1385, 1391(2007). While no finding is required that there is a teaching-suggestion-motivation if other indicia of obviousness are present, the combination proposed in the Final Office Action does not establish, e.g., that the invention to which the claims are directed yields no more than predictable results. As an example, the proposed modification of SATO does not involve the mere substitution of one element for another known in the field. Rather, the proposed modification of SATO involves arranging elements in a manner not previously known, to a purpose and to obtain results not predicted in any of the teachings or references cited in the Final Office Action. In this regard, a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. *KSR versus Teleflex*, 127 S. Ct. 1727 (2007).

As previously described during prosecution, according to the rejections of claims 25, 26, 28 and 32, SATO would be modified with Applicant's disclosed prior art to purportedly result in adjustment of amplitude after sign inversion to obtain a first phase offset, though Applicant's disclosed prior art teaches specifically that amplitude adjustment is conventionally performed before phase control. Further, the proposed modification to the combination of SATO and Applicant's disclosed prior art with the teachings of OMORI would purportedly result in a sign inversion of a multiple of 90°, though OMORI discloses, at column 2, lines 44-55, that a sign of a signal "is inverted without changing the value" of the quadrature component when the value  $\Theta$

shown in FIG. 4C of OMORI changes within either of two specified ranges, and though sign inversion in OMORI is not performed to obtain a first phase offset of a multiple of  $90^\circ$  in either of the specified ranges.

In any case, according to OMORI, any resultant phase offsetting occurs only before amplitude adjustment. However, according to the rejections of claims 25, 26, 28 and 32, the proposed modification of the teachings of SATO and Applicant's disclosed prior art with OMORI would somehow lead one of ordinary skill in the art to phase offsetting by a second phase offset smaller than  $90^\circ$  after amplitude adjustment.

Accordingly, as previously described, the rejection of claims 25, 26, 28 and 32 is based on a proposal in the Final Office Action to place an amplitude adjuster between two stages of phase offsetting, though no such teaching is found anywhere in Applicant's disclosed prior art or the documents applied in the Final Office Action. Further, the Final Office Action does not anywhere cite any proper reasoning to further modify the combination of SATO, Applicant's disclosed prior art and OMORI such that the combination recited in the above-noted claims would result. Rather, at page 5, the Final Office Action impermissibly cites positive teachings of Applicant's non-prior-art disclosure relating to Figure 4A as a basis of the rejections.

Accordingly, it would not be obvious to place an amplitude multiplier between phase shifter 201 in SATO and phase shifter 202 in SATO. Therefore, modification of SATO with the Admitted Prior Art shown in FIG. 4B would result in the amplitude adjustment circuit being placed before phase shifter 201 and phase shifter 202 in SATO, and not between phase shifter 201 and phase shifter 202 in SATO.

Further, there is no proper explanation for modifying the combination of SATO and Applicant's disclosed prior art with the teachings of OMORI, let alone in the manner proposed in

the Final Office Action. Rather, as previously explained, SATO and OMORI are directed to different and apparently incompatible proposals. That is, SATO is directed to processing both I and Q components of a signal, whereas OMORI is directed to intentionally reducing processing when possible and not changing a Q component when changing an I component.

Thus, it would not be obvious to modify SATO in any manner such that the combination of features recited in the pending independent claims would result, and the Final Office Action has not established a proper basis for the rejection of independent claims 25, 26, 28 and 32 over SATO in view of Applicant's disclosed prior art and OMORI.

Additionally, each of independent claim 28 and new independent claim 33 recite features of controlling the second phase offsetting based on a signal from a remote source (in claim 28 "a message included in a reception signal from a receiver that receives communication signals" from the claimed CDMA transmission apparatus). The Final Office Action asserts that features of a "signal from a remote source" are not present in claim 28, though claim 28 recites "a transmission controller that provides control information to the signal point mapper *based on a message included in a reception signal from a receiver that receives communication signals from the CDMA transmission apparatus*" (emphasis added). Accordingly, it appears that the above-noted features of claim 28 are not properly interpreted in the Final Office Action, evidencing yet another shortcoming of the rejection of claim 28.

As previously noted, SATO does not anywhere disclose that the second phase shifter 202 performs the second phase shifting operation according to a "control signal from a remote source" as recited in claim 33 or the related features recited in claim 28. Further, it would not be obvious to modify SATO to control the second phase shifting based on a control signal from a remote source, as such a modification to SATO would render moot substantially all of the

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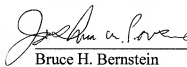
teachings of SATO relating to controlling the second phase shifting using CLK3. In any case, as noted above, the outstanding rejections under 35 U.S.C. §103(a) fail to establish a prima-facie obviousness rejection using the obviousness factors set forth in *Graham v. John Deere Co.*, 383 U.S. 1 (1966).

At least for each and all of the reasons set forth above, each of the independent claims now pending is allowable over SATO, Applicant's disclosed prior art, and/or OMORI, whether considered alone or in any proper combination. Further, each of the pending dependent claims is allowable at least for depending, directly or indirectly, from an allowable independent claim, as well as for additional reasons related to their own recitations including those previously set forth in the Response filed on June 12, 2007.

Accordingly, at least for each and all of the reasons set forth above, reconsideration and withdrawal of each of the outstanding rejections is respectfully requested.

Should there be any questions, any representative of the U.S. Patent and Trademark Office is invited to contact the undersigned at the telephone number provided below.

Respectfully submitted,  
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